Docket No.: 05569.0004.DVUS11

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): McCafferty, et al.

App. No.: 10/803,622 Confirmation No.:6206

Filing Date: March 18, 2004

Title: Methods for Producing Members of

Specific Binding Pairs

Art Unit: 1639

Examiner: Amber D. Steele

Electronic Filing

REQUEST FOR CORRECTED FILING RECEIPT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

The above-identified patent application takes its priority from several other patent applications, one of which is US Application 07/971,857 which issued as US Patent 5,969,108. Applicants submit herewith a copy of the official filing receipt for US Application 07/971,857 (Exhibit A) as well as the front page of US Patent 5,969,108 (Exhibit B). As can be seen from the enclosed filing receipt copy and the patent front page, US Application 07/971,857 was filed as a national stage application from PCT/GB91/01134. The US PTO determined that PCT/GB91/01134 has met the requirements of 35 U.S.C. §371 and accepted US Application 07/971,857 for national patentability examination. The enclosed filing receipt copy establishes that US Application 07/971,857 was a national stage application of PCT/GB91/01134.

Applicants request that the priority claim for the above-identified application be corrected based on the fact that US Application 07/971,857 was a national stage application of PCT/GB91/01134. Applicants further respectfully request the issuance of a corrected filing receipt for the above-identified patent application.

No fees are believed to be due in connection with the Applicants' request for the issuance of a corrected filing receipt, however, should any fees be deemed necessary for any reason

Application No. 10/803,622 05569.0004.DVUS11

Filed: March 18, 2004

relating to the filing of this request, the Commissioner is hereby authorized to deduct the fees from Howrey LLP Deposit Account 08-3038 referencing the above docket number.

Respectfully submitted,

HOWREY LLP

 $\mathbf{R}\mathbf{v}$

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Dated: November 3, 2008

ATTN: Docketing Department 2941 Fairview Park Drive, Suite 200

Falls Church, VA 22042-9922 Telephone No.: (703) 663-3600 Facsimile No.: (703) 336-6950

Exhibit A



UNITED STATES I ARTMENT OF COMMERCE

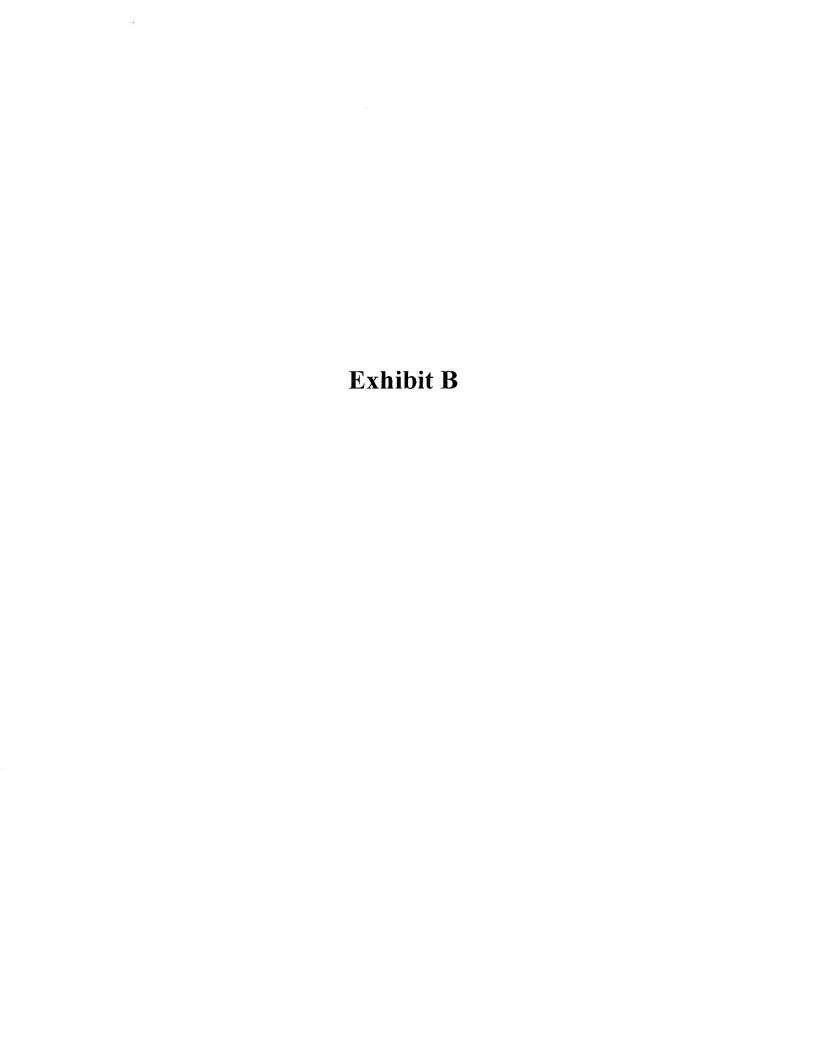
1990

Patent and Trademar Mice
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

| US APPLICATION NO. | , FIRST NAMED APPLICANT | ATTY. DOCKET NO. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 07/971,857 | JOHN | A-57832/WHD |
| | | INTERNATIONAL APPLICATION NO. |
| FLEHR, HOHBACH, TE ALBRITTON & HERBER | ST T | PCT/GB91/01134 |
| FOUR EMBARCADERO C | ENTER | I.A. FILING DATE PRIORITY DATE |
| SAN FRANCISCO, CA | 94111 | 10 Jul. 1991 10 Jul. |
| · | | DATE MAILED: 31 March 1994 |
| | OF ACCEPTANCE OF APPLICA AND 37 CFR 1.494 OR 1. | 495 |
| a Designated Office (37 (that the above identified inter ACCEPTED for national part | CFR 1.494), // an Elected Office (3' mational application has met the requirentability examination in the United | irements of 35 U.S.C. 371, and is |
| 8 0 AM 18 | 993 8 99 | |
| 3. A request for immediand the application will be ex | 35 U.S.C. 371 REQUIREM ate examination under 35 U.S.C. 371 amined in turn. | |
| Oath or Declaration of i Copy of Article 19 ame The Article 19 The International Prelin Translation of Annexes The Annexes Preliminary amendment Information Disclosure Assignment document. Power of Attorney and / Substitute specification Verified Statement Clair Priority Document. | al application in: language. national application into English. Inventors(s) for DO/EO/US. Indments. | been entered. and its Annexes, if any. ation Report into English. and |

A Filing Receipt (PTO-103X) will be issued for the present application in due course. Once the Filing Receipt has been received, send all correspondence to the Group Art Unit designated thereon.

Applicant is reminded that any communication to the United States Patent and Trademark Office must be





United States Patent [19]

McCafferty et al.

Patent Number:

5,969,108

Date of Patent: [45]

Oct. 19, 1999

METHODS FOR PRODUCING MEMBERS OF SPECIFIC BINDING PAIRS

[75] Inventors: John McCafferty, Sawston; Anthony Richard Pope; Kevin Stuart Johnson, both of Cambridge; Henricus Renerus Jacobus Mattheus Hoogenboom, Little Shalford; Andrew David Griffiths, Cambridge; Ronald Henry Jackson, Cambridge; Kaspar Philipp Holliger, Cambridge; James David Marks, Cherry Hinton, all of United Kingdom; Timothy Piers Clackson, Palo Alto, Calif.; David John Chiswell, Middle Claydon, United Kingdom; Gregory Paul Winter; Timothy Peter Bonnert, both of Cambridge, United Kingdom

[73] Assignees: Medical Research Council, London; Cambridge Antibody Technology Limited, Cambridgeshire, both of United Kingdom

07/971,857 [21] Appl. No.: [22] PCT Filed: Jul. 10, 1991

[86] PCT No.: PCT/GB91/01134

> § 371 Date: Jan. 8, 1993 § 102(e) Date: Jan. 8, 1993

[87] PCT Pub. No.: WO92/01047

Jul. 10, 1990 [GB]

PCT Pub. Date: Jan. 23, 1992

[30] Foreign Application Priority Data

| Oct. | 19, 1990 | [GB] | United | Kingdom | | 9022845 |
|------|-----------|-------|----------|-----------|----------------------|----------|
| Nov. | 12, 1990 | [GB] | United | Kingdom | | 9024503 |
| Mar | . 6, 1991 | [GB] | United | Kingdom | | 9104744 |
| May | 15, 1991 | [GB] | United | Kingdom | | 9110549 |
| • | | - | | _ | | |
| [51] | Int. Cl.6 | | | . C07K | 19/ 00 ; C07I | H 21/04; |
| | | | | | C12 | N 15/13 |
| [52] | U.S. Cl. | | | 530/387.3 | 3; 530/867; | 435/9.1: |
| [] | CIDI CII | | | | 5/320.1; 43 | |
| | | 433/0 | 9.1; 433 | 709.0; 43 | 03/320.1; 43 | 3/233.1; |
| | | | 5. | 36/23.1; | 536/23.53; 5 | 536/23.4 |
| | | ~ . | | | TAA (AA) | |

United Kingdom 9015198

[58] Field of Search 530/387.1, 412, 530/387.3, 867; 536/23.1, 23.53, 23.4; 435/5, 252.3, 6, 69.6, 7.1, 69.7, 9.1, 69.1, 69.8, 230.1, 320.1

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Primary Examiner—Frank C. Eisenschenk Attorney, Agent, or Firm-Marshall, O'Toole, Gerstein, Murray & Borun

ABSTRACT

A member of a specific binding pair (sbp) is identified by expressing DNA encoding a genetically diverse population of such sbp members in recombinant host cells in which the sbp members are displayed in functional form at the surface of a secreted recombinant genetic display package (rgdp) containing DNA encoding the sbp member or a polypeptide component thereof, by virtue of the sbp member or a polypeptide component thereof being expressed as a fusion with a capsid component of the rgdp. The displayed sbps may be selected by affinity with a complementary sbp member, and the DNA recovered from selected rgdps for expression of the selected sbp members. Antibody sbp members may be thus obtained, with the different chains thereof expressed, one fused to the capsid component and the other in free form for association with the fusion partner polypeptide. A phagemid may be used as an expression vector, with said capsid fusion helping to package the phagemid DNA. Using this method libraries of DNA encoding respective chains of such multimeric sbp members may be combined, thereby obtaining a much greater genetic diversity in the sbp members than could easily be obtained by conventional methods.

59 Claims, 46 Drawing Sheets